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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Ajit S. Shah

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EXAMINER

WOO, ISAAC M

ART UNIT

PAPER NUMBER

2166

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/742,699

Applicant(s)

SHAH ET AL.

Examiner

Isaac M. Woo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) 15-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 24-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/2/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant elected Group I, in response to the restriction Requirement set forth in the Office Action mailed February 22, 2005, comprising claims 1-14 without traverse. Group II (claims 15-18), Group III (claim 19), Group IV (claim 20), Group V (claim 21-22) and Group VI (claim 23), are withdrawn from further consideration.
2. Claims 1-14 are amended. Claims 24-26 are newly added. Claims 15-23 are withdrawn. Claims 1-14 and 24-26 are presented for examination for this office action.

Drawings

3. The drawings were received on May 05, 2005. These drawings are accepted.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-14 and 24-26 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

As set forth in MPEP 2106 (II) (A):

A. Identify and Understand Any Practical Application Asserted for the Invention

The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (*Brenner v. Manson*, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); *In re Ziegler*, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600,1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful.

Apart from the utility requirement of 35 U.S.C. 101, usefulness under the patent eligibility standard requires significant functionality to be present to satisfy the useful result aspect of the practical application requirement. See *Arrhythmia*, 958 F.2d at 1057, 22 USPQ2d at 1036. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make the invention eligible for patenting. For example, a claim directed to a word processing file stored on a disk may satisfy the utility requirement of 35 U.S.C. 101 since the information stored may have some "real world" value. However, the mere fact that the claim may satisfy the utility requirement of 35 U.S.C. 101 does not mean that a useful result is achieved under the practical application requirement. The claimed invention as a whole must produce a "useful, concrete and tangible" result to have a practical application.

Regarding claim 1, an information exchange system with *no physical structure of the machine in terms of its hardware or hardware and software combination*. Because the limitation of claim 1, "virtual record manager" and "data exchange engine" are software system that are not embedded any a computer-readable medium and run by any a computer or machine. Therefore, the claim is not a statutory system and should be rejected under § 101 as not being tangible.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-11 and 24-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Khan (U.S. Patent No. 6,735,591).

With respect to claim 1, Khan discloses, virtual record manager (20, information warehouse computer program, fig. 1, col. 3, lines 45-55) coupled to a database (col. 1, lines 6-11) and configured to manage the storage of at least one data record in the

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database (10, information warehouse, fig. 1, col. 3, lines 45-55), the data record being managed at an individual data field level (54, "individuals" table in the information table, fig. 3, col. 64-67 to col. 5, lines 1-10, the management program configured to manage database record that are individual data field, such as, name); and data exchange engine (30, data exchange module, fig. 1, col. 3, lines 45-55) coupled to the database (10, data warehouse, fig. 1, col. 3, lines 45-55) and configured to support an exchange of the information in at least one data field between at least two parties (col. 12, lines 23-59), the exchange being based on a relationship between the parties (such as "A" and "B), relationship being represented in the database (fig. 8a, fig. 2b, for instance, the relationship between A and B is "Owns"), see (fig. 8a, col. 12, lines 23-59).

With respect to claim 2, Khan discloses, virtual record manager is configured to support a complex data record, the complex data record comprising a plurality of related data fields, see (fig. 2b, fig. 2c, fig. 7c-1, col.10, lines 44-67).

With respect to claim 3, Khan discloses, data exchange engine is configured to support the exchange of the information in the complex data record, see (fig. 7c-1, col.10, lines 44-67, fig. 8a, col. 12, lines 23-59).

With respect to claim 4, Khan discloses, virtual record manager is configured to allow a unique type of data record to be created substantially instantaneous, see (fig.

7c-1, col.10, lines 44-67, fig. 8a, col. 12, lines 23-59, data record exchange creates new data record instantaneous).

With respect to claim 5, Khan discloses, virtual record manager is configured to allow an instance of the data record to be allocated to the database substantially instantaneous, see (fig. 7c-1, col.10, lines 44-67, fig. 8a, col. 12, lines 23-59, data record exchange allocates new data record instantaneous, for instance, the value associated with the exchange in relationship, such as, the price of the car, is stored just after exchange).

With respect to claim 6, Khan discloses, virtual record manager is configured to assign each data field a unique identifier, see (fig. 7c-1, col.10, lines 44-67, each data has each ID).

With respect to claim 7, Khan discloses, virtual record manager is configured to associate each data field with a data record type and to manage each data field according to the data record type, see (fig. 7c-1, col.10, lines 44-67).

With respect to claim 8, Khan discloses, virtual record manager is configured to utilize a virtual object to manage the storage of the data record (20, information warehouse computer program, fig. 1, col. 3, lines 45-55), the virtual object defining a data record structure being a logical grouping of individual data fields (40, informational

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table, fig. 3 comprises groups of data records), the virtual object being described as a virtual object type whereby the virtual object type is configured to provide a description of the data record structure (fig. 4, col. 5, lines 41-65); wherein utilization of the virtual object allows a unique type of data record to be created substantially instantaneous, see (fig. 7c-1, col.10, lines 44-67, fig. 8a, col. 12, lines 23-59, data record exchange allocates new data record instantaneous, for instance, the value associated with the exchange in relationship, such as, the price of the car, is stored just after exchange).

With respect to claim 9, Khan discloses, utilization of the virtual object allows an instance of the data record to be allocated to the database substantially instantaneous, see (fig. 7c-1, col.10, lines 44-67, fig. 8a, col. 12, lines 23-59, data record exchange allocates data record instantaneous).

With respect to claim 10, Khan discloses, party to exchange specific data fields with all other parties with which the party has a relationship, see (fig. 8a, col. 12, lines 23-59).

With respect to claim 11, Khan discloses, virtual record manager is configured to define a mapping (relationship) between a third party data record format (data item 1) and a native data record forma (data item 2), see (fig. 2b, fig. 2c, col. 3, lines 57-67 to col. 4, lines 1-24).

With respect to claim 24, Khan discloses, relationship between the parties is personal, see (fig. 8a, col. 12, lines 23-59, relationship between A and B may be personal).

With respect to claim 25, Khan discloses, relationship between the parties is business, see (fig. 8a, col. 12, lines 23-59).

With respect to claim 26, Khan discloses, relationship between the parties is social, see (fig. 8a, col. 12, lines 23-59).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Khan (U.S. Patent No. 6,735,591) in view of Nagamoto (U.S. Patent No. 6,487,557).

With respect to claim 12, Khan discloses mapping (relationship, fig. 8a, col. 12, lines 23-59). Khan does not explicitly disclose mapping utilizes extensible markup

language. However, Nagamoto discloses, "recently in XML (extensible Markup Language) into which HTML and SGML had been integrated", see (col. 1, lines 27-37), "As illustrated in FIG. 3, the client database 120 connected with the provides' a access management server 110 include a client user information table 121, a history table 122, a yellow page table 123, an objects image table 124 and a map table", see (col. 12, lines 33-46). This teaches that the XML is integrated into HTML to present information and provide graphical user interface. Thus, Nagamoto can display the database mapping using XML. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify Khan by incorporating mapping utilizes extensible markup language with the system of Nagamoto. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a combination because that would provide Khan's system the enhanced and user-friendly graphical user interface with XML to database management system users.

10. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khan (U.S. Patent No. 6,735,591) in view of Goldstein (U.S. Patent No. 5,963,642).

With respect to claim 13, Khan discloses, data record in the database, see (10, information warehouse, fig. 1, col. 3, lines 45-55). Khan does not explicitly disclose encryption engine coupled to the database and configured to manage the encryption of the data record. However, Goldstein discloses, "The apparatus comprises a database

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having a semantically represented store of data. The apparatus comprises a database mechanism for performing database operations with the semantically represented data. The database mechanism is connected with the database. The apparatus comprises an access mechanism connected to the database mechanism for obtaining data from the database mechanism such that the access mechanism comprises different users with different representations of the semantically encrypted data", see (col. 12, lines 38-58, col. 10, lines 27-54). This teaches that the system of Goldstein presents the database management system for encrypted data. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify Khan by incorporating encryption engine coupled to the database and configured to manage the encryption of the data record with the system of Goldstein. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a combination because that would provide Khan's system the enhanced and secure information management with encrypted data in database management system.

With respect to claim 14, Khan discloses, data record in the database, see (10, information warehouse, fig. 1, col. 3, lines 45-55). Khan does not explicitly disclose, different encryption method for individual data fields of the data record. However, Goldstein discloses, "The apparatus comprises a database having a semantically represented store of data. The apparatus comprises a database mechanism for performing database operations with the semantically represented data. The database

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mechanism is connected with the database. The apparatus comprises an access mechanism connected to the database mechanism for obtaining data from the database mechanism such that the access mechanism comprises different users with different representations of the semantically encrypted data", see (col. 12, lines 38-58, col. 10, lines 27-54). This teaches that the system of Goldstein presents the database management system for different encrypted data managing method for different users different representations of the semantically encrypted data. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify Khan by incorporating different encryption method for individual data fields of the data record with the system of Goldstein. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a combination because that would provide Khan's system the enhanced and secure information management for different users with different representations of the encrypted data in database management system.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac M. Woo whose telephone number is (571) 272-4043. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IMW
October 27, 2005